Atty. Docket: Q81015

## **REMARKS**

Entry and consideration of this Supplemental Response are respectfully requested. Below, Applicant discusses eight points to highlight the differences between the claimed subject matter and that set forth in the references as applied.

First, as to certain technical features of the present application, they can be stated as follows:

- i) coating the substrate in a horizontal state;
- ii) said coating is performed while maintaining the coated surface facing downwardly all the time of said coating period, namely from the timing of chucking the substrate to the timing of releasing it after coating, by which variation of the film thickness that is caused such as by the turning substrate can be eliminated; and
- iii) when the substrate is attached and detached, the substrate is turned with its posture inclined since it is rather inconvenient and is also dangerous to keep the coated surface facing downwardly at such a time as stated in previous responses.

Applicant reminds the Examiner that chucking the substrate in a horizontal plane and turning the substrate are performed by different mechanisms, namely the former being performed by the chucking means, the latter by the holding means. This is because there is such a problem that the turning mechanism is likely to cause a subtle positional deviation or vibration. Therefore, in order to avoid such an adverse influence to the holding position of the coated substrate, said two mechanisms can be made to be separated from each other.

In the RCE as filed March 19, 2007, the claims have been amended to be clearly described in light of the above technical features. No new matter has been introduced. Also, it is quite apparent from the description of the specification that the substrate is made individually as defined in the dependent claims.

Second, turning to the primary reference Motomura, turning the substrate by a predetermined angle is not taught or suggested in the reference as has been also stated in the Examiner's Office Action.

Atty. Docket: Q81015

Third, turning to Motoda, the reference does not disclose such a feature of turning the substrate by a predetermined angle.

Fourth, turning to Mendiola, it states that chucking the substrates (plates) is not a favorable way since handling the substrate individually would result in increasing the processing time and the chances of damaging the substrates, as stated in column 3, lines 15-20. In light of this, Mendiola teaches away from the methods that are employed in the present application as already mentioned in the previous responses. This is also consistent with the newly filed dependent claims where the substrates are individually handled.

Fifth, contrary to that claimed, Mendiola employs the different method, inverting a plurality of substrates in a cassette simultaneously, for the purpose of resolving the problems with the conventional arts where the rotatable vacuum chuck is employed to invert a plurality of substrates. Therefore, a clear distinction can be made with respect to the present claims because the present claims resolve the same sort of the conventional problems by the holding means in addition to the chucking means with the structure such as being separate from each other, which is quite a different approach from Mendiola. On top of this, the present claims are also distinguishable from Mendiola for the reason that the substrate is turned in an inclined state while Mendiola turns the plate completely 180 degrees.

Sixth, as to JP '843, this reference merely discloses the wafer holding boat used at the time of heating, which has nothing to do with the coating process to coat the substrate, although there is recitation of transferring the wafer to the other equipment. In view of this, detaching the substrate at the timing of coating is unlikely to be thought of as the technical problem to be solved. Therefore, Applicant takes the position in that prior artisans would not have been motivated to combine this reference with Motomura or Motoda. On top of this, transferring the wafer is carried out from the cassette-like holding boat, in which a plurality of the wafers are accommodated, and this technical feature has nothing to do with the attaching/detaching of the substrate being carried out in the horizontal state at the timing of coating, let alone the idea of turning the substrate in an inclined state.

Atty. Docket: Q81015

Seventh, according to the present claims, the turning mechanism for turning the substrate in an inclined angle is not required for the chucking means for just chucking the substrate at the coating. The chucking means of the claims is sufficiently employed if it has the function to keep the substrate to be coated downwardly. In other words, a mechanism to hold the substrate in an inclined state, which is utilized for the timing of attaching/detaching the substrate before/after it is coated, is only furnished with the holding means that is capable of being completely separated from the chucking means.

Eighth, in summary, the present inventor has solved the following problems. That is, one problem is deterioration of positional accuracy of the chucking means caused by the turning mechanism required for turning the substrate, and another is propagation of the vibration to the chucking means caused by subtle vibration originated from the turning mechanism. In view of this, the present inventor has performed coating by an apparatus having the coating function and turning function where the former is to coat the substrate by keeping the surface to be coated downwardly in a horizontal state, and the latter is to turn the substrate in an inclined state for the purpose of attaching/detaching the substrate, and further, wherein the methods are performed by separating both functions completely, by which deterioration of positional accuracy of the chucking means can be prevented, or propagation of the vibration to the chucking means can be eliminated, which ends up keeping the coated film thickness constant. This method is significantly valuable in the case of applying the resist coating process at the time of manufacturing the larger size photo mask blank which requires highly accurate precision.

Therefore, Applicant believes the patentability of the present claims is quite high in respect of the above mentioned "unforeseeable significant effect" to which any prior arts or combination thereof can not reach.

## Conclusion

In view of the above, and in view of the previous response filed March 19, 2007, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best

Supplemental Response Under 37 C.F.R. § 1.114(c) U.S. Appln. No. 10/820,752

Atty. Docket: Q81015

resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

sistration No. 41,574

SUGHRUE MION, PLLC Telephone: (202) 293-7060

Facsimile: (202) 293-7860

WASHINGTON DC SUGHRUE/265550

65565
CUSTOMER NUMBER

Date: April 24, 2007